City Mobility Planning Inner West Loop Study

Stakeholder Meeting

July 25, 2012

Introductions

- City Staff
- Partner Agency Staff
- Consultants
- Stakeholders

Schedule

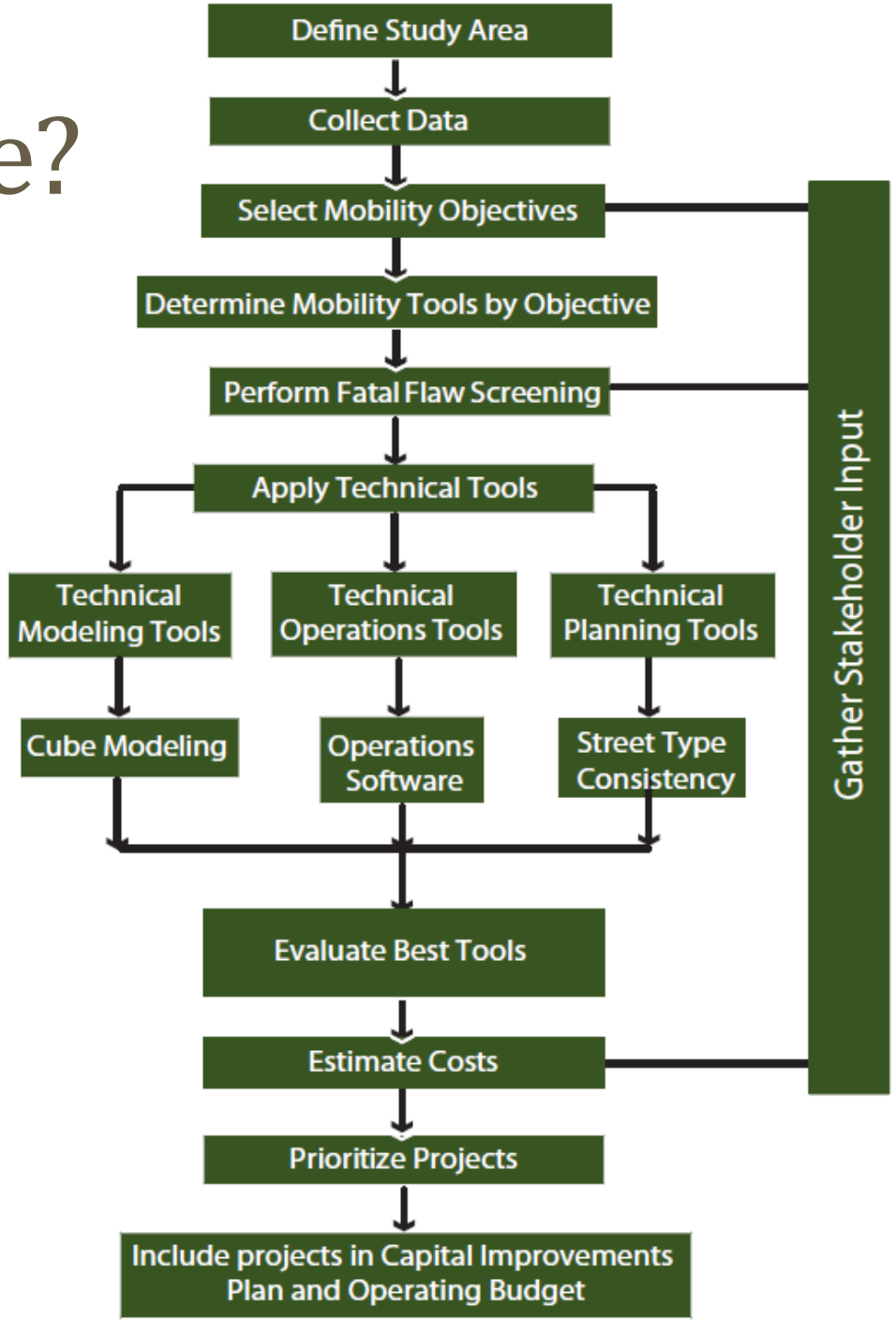
- Data Collection – January – March
- First Public Meeting – March
- Existing Conditions Analysis – March – April
- Future Conditions Analysis – May – August
- Mitigation Strategies and Potential Project Development – April – August
- Second Public Meeting – August
- **Development of Draft and Final Report – July - August**

Community Input To Date

- Lack of bike and pedestrian infrastructure
- Limited Right of Way for road expansion
- Improved transit access
- Reconstruct street with bad pavement ratings

Where Are We?

- Overview of where we are headed
- Discussion of what to talk about with the public
- Discussion of the merits of each scenario
- Review of potential projects
- Discussion of additional projects for consideration



Multi-modal Re-classification

- Conversion from traditional MTFP to Multi-modal approach
- Emphasis on sidewalks, on-street parking & bike facilities in some locations

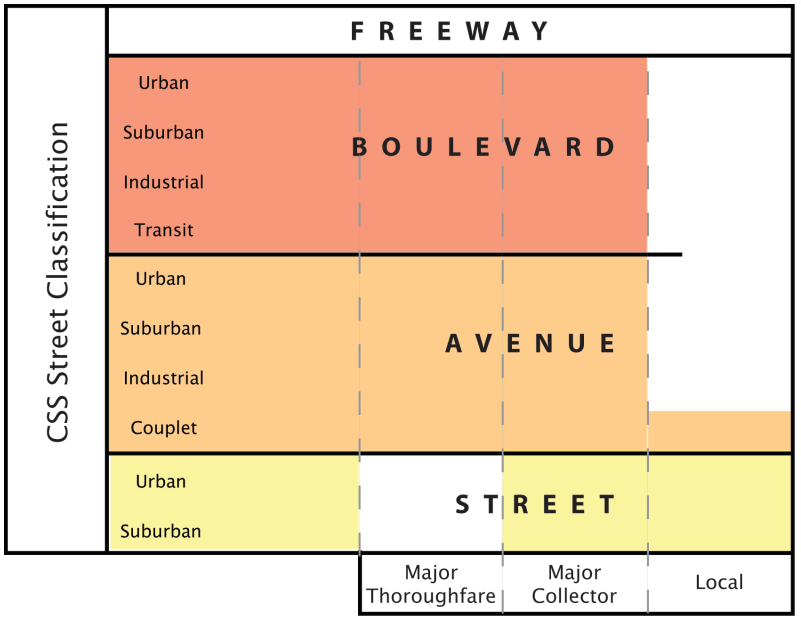
URBAN AVENUE DESIGNATION

	PEDESTRIAN REALM		TRAVELWAY REALM				
Minimum R.O.W. (feet)	Sidewalk (feet)	Tree Well or Swale (feet)	On-Street Parking (feet)	Bike Lane (feet)	Median Width (feet)	Lane Widths (feet)	ADT (vpd)
80	20 x 2 = 40	TW	8 x 2 = 16	N/A	N/A	2 x 12 = 24	1,500-15,000
	10 x 2 = 20	TW	18 x 2 = 36 *	N/A	N/A		
	15 x 2 = 30	TW	8 x 2 = 16	5 x 2 = 10	N/A		
	10 x 2 = 20	TW	18 x 2 = 36 *	N/A	N/A		
	22 x 2 = 44	TW	N/A	6 x 2 = 12	N/A		
	21 x 2 = 42	TW	N/A	N/A	N/A	2 x12 + 1 x14 (CLTL*)* = 38	5,000-20,000
	13 x 2 = 26	TW	8 x 2 = 16	N/A	N/A		
	8 x 2 = 16	TW	8 x 2 = 16	5 x 2 = 10	N/A		
	15 x 2 = 30	TW	N/A	6 x 2 = 12	N/A		
	16 x 2 = 32	TW	N/A	N/A	N/A	4 x 12 = 48	10,000-30,000
	8 x 2 = 16	TW	8 x 2 = 16	N/A	N/A		
	10 x 2 = 20	TW	N/A	6 x 2 = 12	N/A		
100	13 x 2 = 26	TW	8 x 2 = 16	5 x 2 = 10	N/A	4 x 12 = 48	10,000-30,000
	20 x 2 = 40	TW	N/A	6 x 2 = 12	N/A	4 x 12 = 48	

* Angle Parking

Functional Street Class

- New Functional Class allows for:
  - More variety of roadway types
  - Distinguishes function clearer
  - Greater emphasis on multi-modal elements



Freeway/Expressway/Parkways

- High speed facility
- Controlled-access thoroughfares with grade-separated interchanges and no pedestrian access.
- Parkways can have some at-grade intersections but are highly controlled

Suburban Boulevard

- High speed (40 to 45 mph) divided arterial
- Long distance traffic and serve large tracts of separated single land uses
- Typically 4 to 8 lanes and provide limited direct access to land
- In the context realm buildings or parking lots adjacent to suburban boulevards typically have large landscaped setbacks

Urban Boulevard

- Walkable, lower speed (35 mph or less) divided arterial thoroughfare
- Urban Boulevards may be long corridors, typically 4 to 6 lanes but sometimes wider
- Serves longer trips and provide limited access to land. Boulevards may be high ridership transit corridors
- Pedestrian and context realms are extremely oriented towards the pedestrian and building frontages

Transit Boulevard

- Very walkable, lower speed (35 mph or less) divided thoroughfare
- Designed to carry both through and local traffic
- Transit Boulevards are extremely oriented towards providing the pedestrian with more space and building frontages

Urban Avenue

- Walkable, low-to-medium speed (30 to 35 mph)
- Generally shorter in length than boulevards, serving access to abutting land.
- Designed to carry both through and local traffic
- Urban Avenues serve as primary pedestrian and bicycle routes and may serve local transit routes.
- Urban Avenues may serve commercial or mixed-use sectors and often provide curb parking

Suburban Avenue

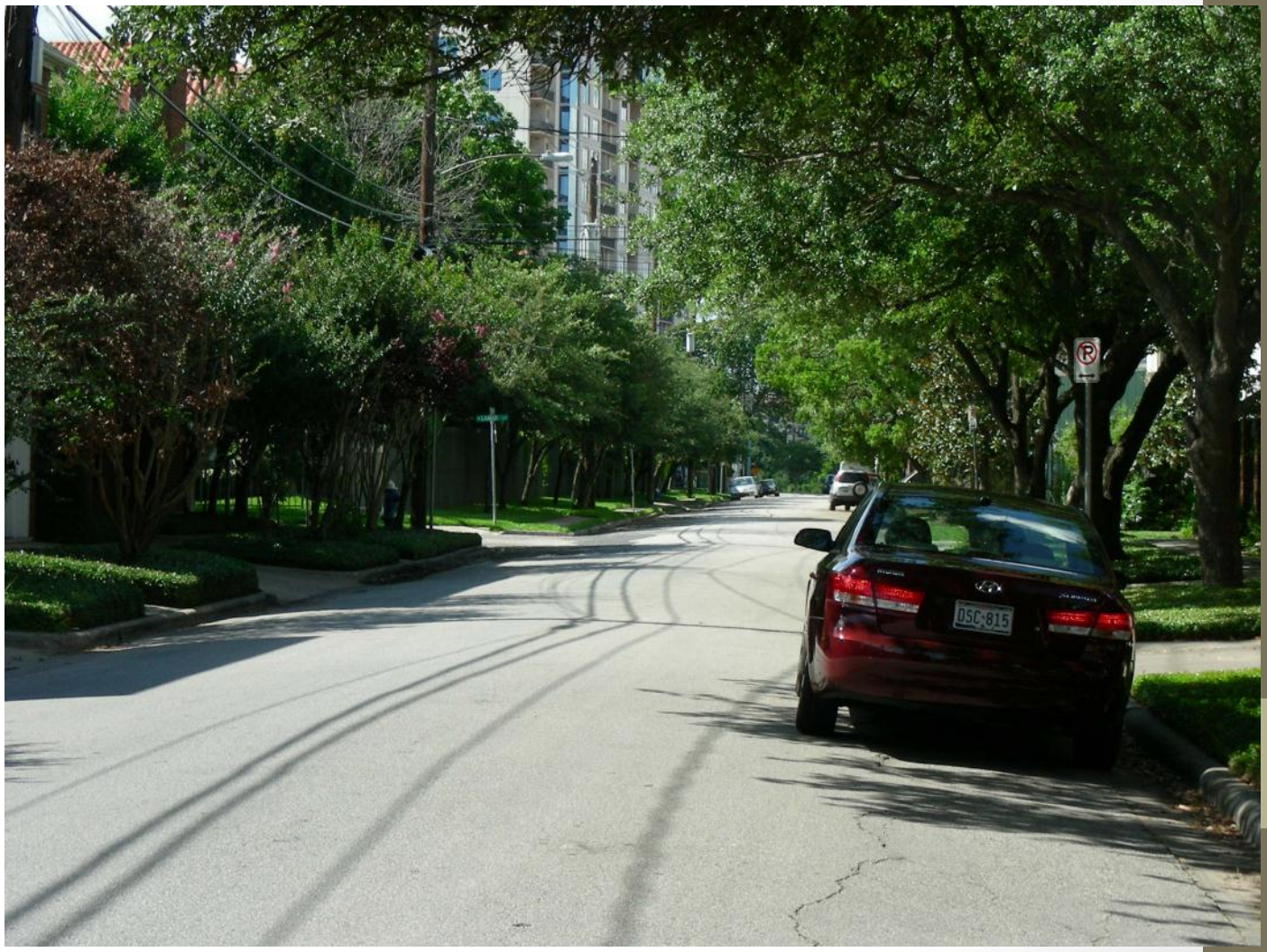
- Walkable, low-to-medium speed (30 to 35 mph)
- Some suburban avenues feature a raised landscaped medianDesigned to carry both through and local traffic
- Suburban Avenues serve as primary pedestrian and bicycle routes and may serve local transit routes.
- The pedestrian realm is distinguished by a landscape buffer separating the street from the sidewalk with street trees located outside of the sidewalk area

Urban Street

- Walkable, low speed (25 mph) thoroughfare in urban areas primarily serving abutting property
- A Street is designed to connect residential neighborhoods with each other, connect neighborhoods with commercial and other districts, and connect local streets to arterials
- Streets may serve as the main street of commercial or mixed-use sectors and emphasize curb parking

Suburban Street

- Walkable, low speed (25 mph) thoroughfare in suburban areas primarily serving abutting property.
- A Street is designed to connect residential neighborhoods with each other, connect neighborhoods with commercial and other districts, and connect local streets to arterials
- The context realm is defined by a landscape buffer, trees with a separated sidewalk.

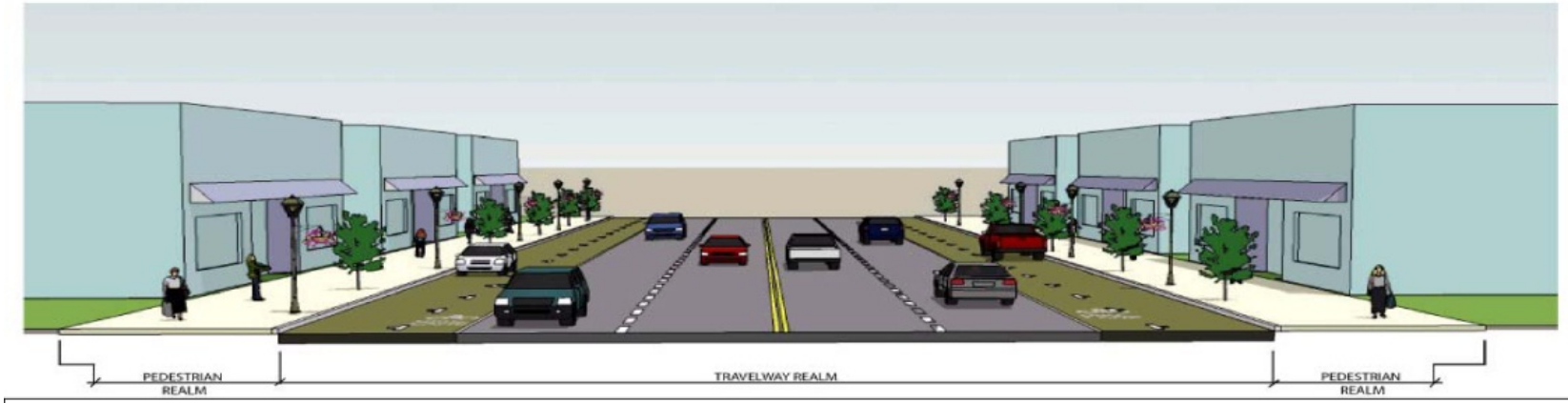


Industrial Boulevards and Avenues

- Industrial streets vary in speed from 30 to 45 mph in both urban and suburban areas.
- An industrial street is designed to connect heavy vehicles to and from major highways to industrial areas.
- These streets have wide travel lanes with large turning radii and most often have limited pedestrian elements
- Medians are optional

Couplets

- One –Way Couplets are designed to have a higher transportation capacity than an equivalent two-way street.
- Both parallel and angled parking are appropriate for these streets

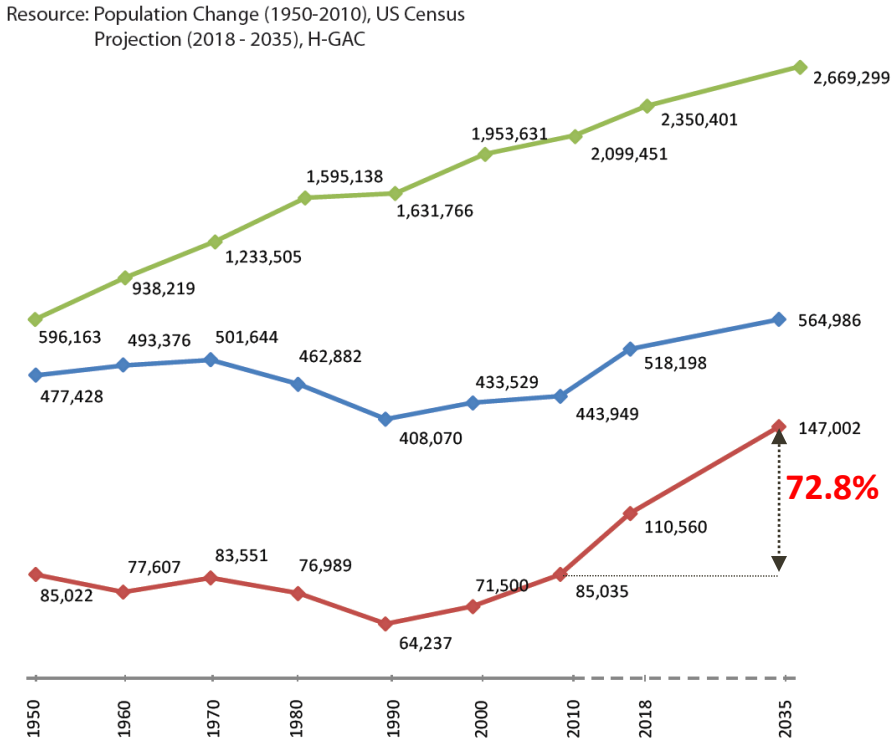


URBAN AVENUE DESIGNATION

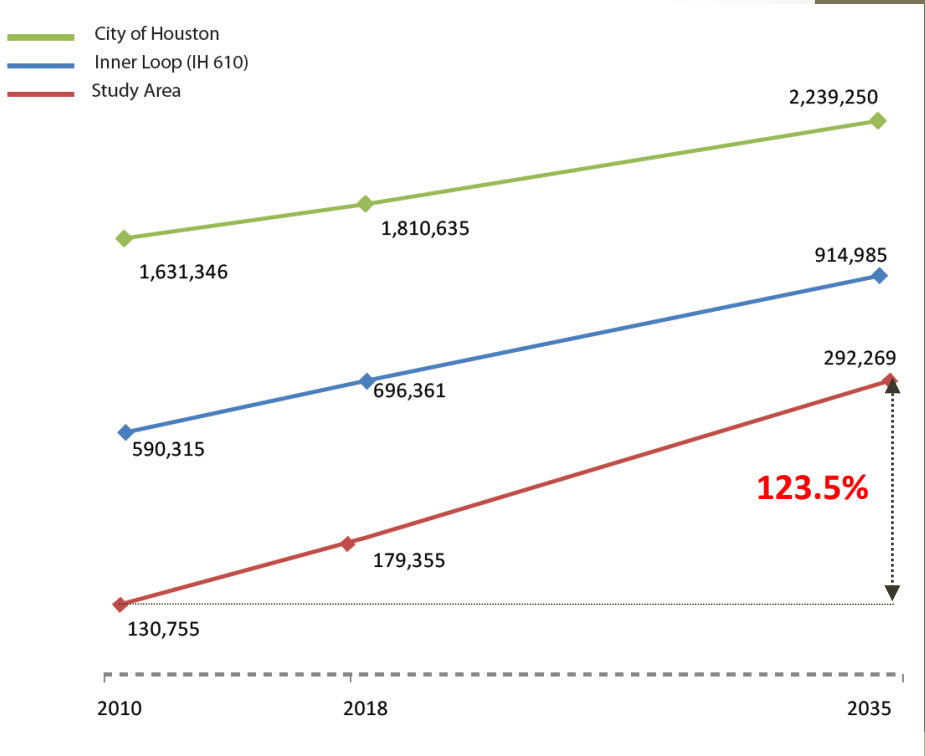
	PEDESTRIAN REALM		TRAVELWAY REALM				
Minimum R.O.W. (feet)	**Sidewalk (feet)**	**Tree Well or Swale (feet)**	**On-Street Parking (feet)**	**Bike Lane (feet)**	**Median Width (feet)**	**Lane Widths (feet)**	**ADT (vpd)**
80	20 x 2 = 40	TW	8 x 2 = 16	N/A	N/A	2 x 12 = 24	1,500-15,000
	10 x 2 = 20	TW	18 x 2 = 36 *	N/A	N/A		
	15 x 2 = 30	TW	8 x 2 = 16	5 x 2 = 10	N/A		
	10 x 2 = 20	TW	18 x 2 = 36 *	N/A	N/A		
	22 x 2 = 44	TW	N/A	6 x 2 = 12	N/A		
	21 x 2 = 42	TW	N/A	N/A	N/A	2 x12 + 1 x14 (CLTL*)* = 38	5,000-20,000
	13 x 2 = 26	TW	8 x 2 = 16	N/A	N/A		
	8 x 2 = 16	TW	8 x 2 = 16	5 x 2 = 10	N/A		
	15 x 2 = 30	TW	N/A	6 x 2 = 12	N/A		
	16 x 2 = 32	TW	N/A	N/A	N/A	4 x 12 = 48	10,000-30,000
	8 x 2 = 16	TW	8 x 2 = 16	N/A	N/A		
	10 x 2 = 20	TW	N/A	6 x 2 = 12	N/A		
100	13 x 2 = 26	TW	8 x 2 = 16	5 x 2 = 10	N/A	4 x 12 = 48	10,000-30,000
	20 x 2 = 40	TW	N/A	6 x 2 = 12	N/A	4 x 12 = 48	

* Angle Parking

Population & Employment Scenario



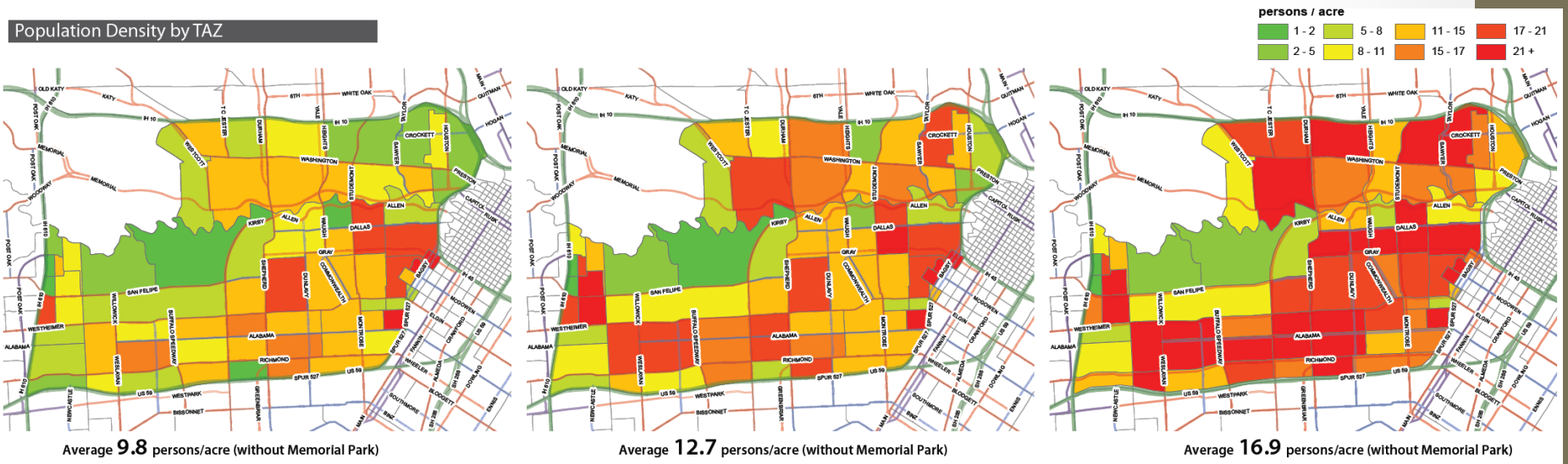
Population



Employment

Population & Employment Scenario by TAZ

Population Density by TAZ



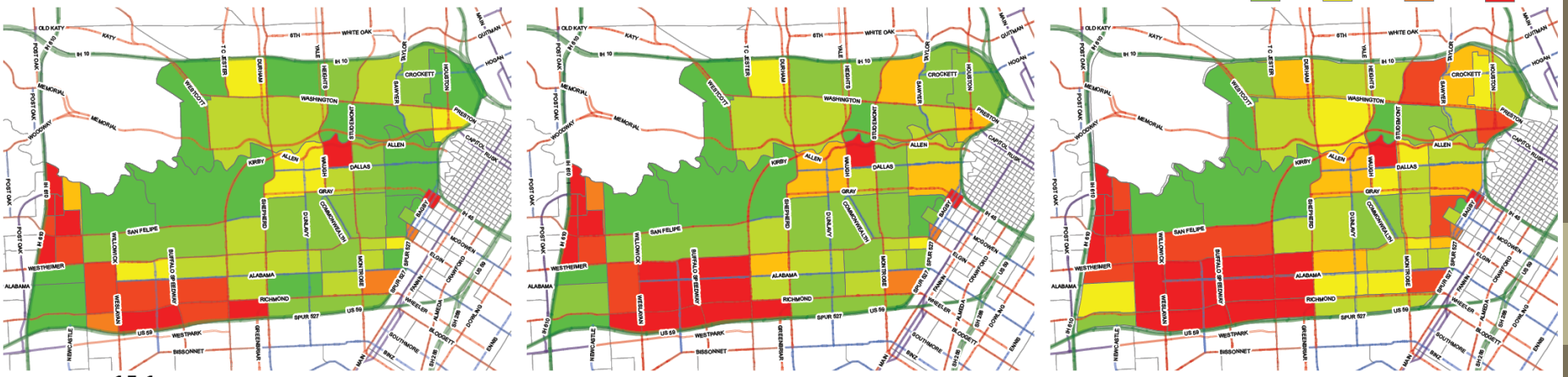
Average **9.8** persons/acre (without Memorial Park)

Average **12.7** persons/acre (without Memorial Park)

Average **16.9** persons/acre (without Memorial Park)

2010 **2018** **2035**

Employment Density by TAZ



Average **15.1** jobs/acre (without Memorial Park)

Average **20.7** jobs/acre (without Memorial Park)

Average **33.7** jobs/acre (without Memorial Park)

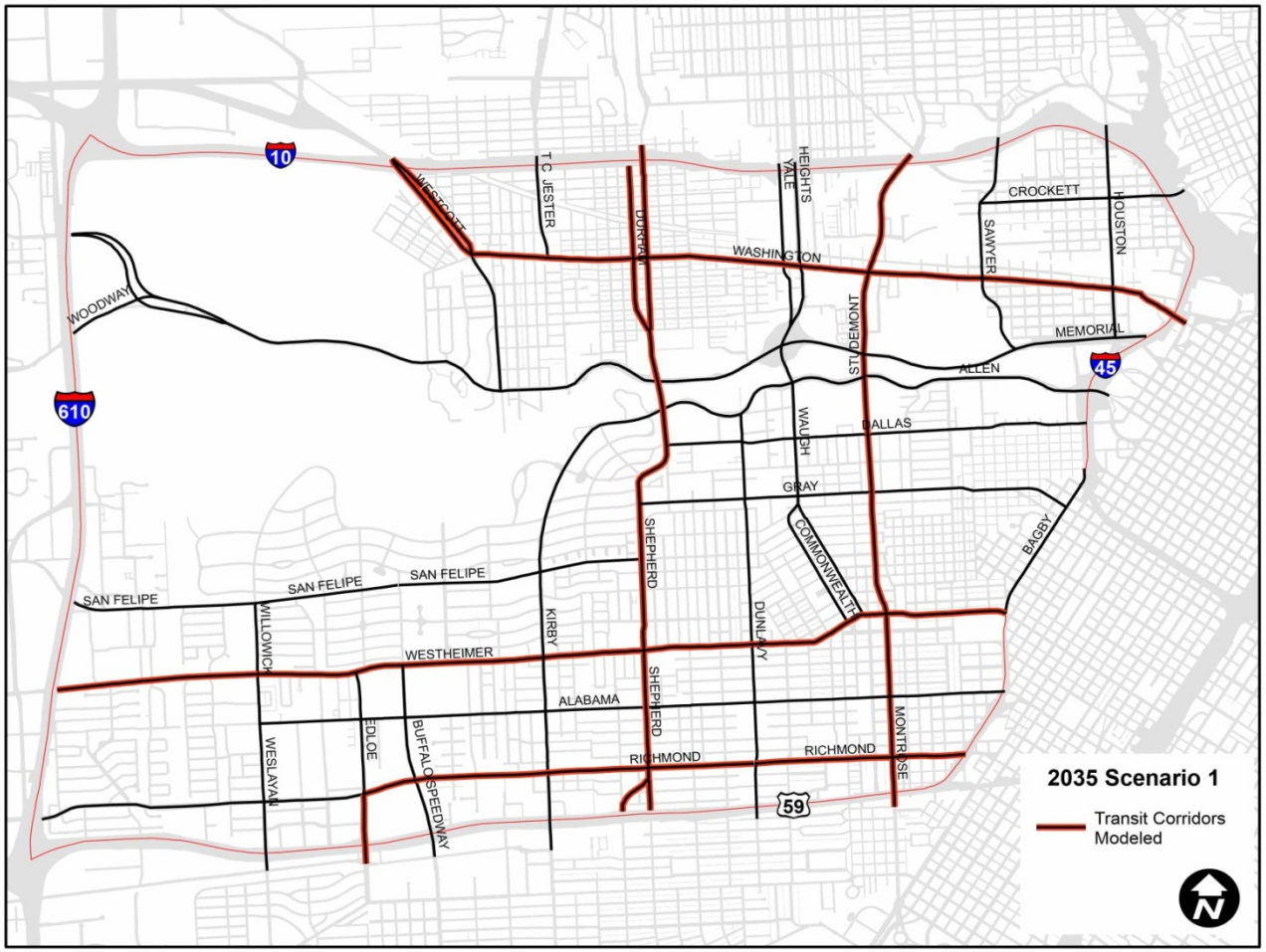
Modeling Scenarios

H-GAC ran 4 scenarios to compare future traffic demand in West Houston

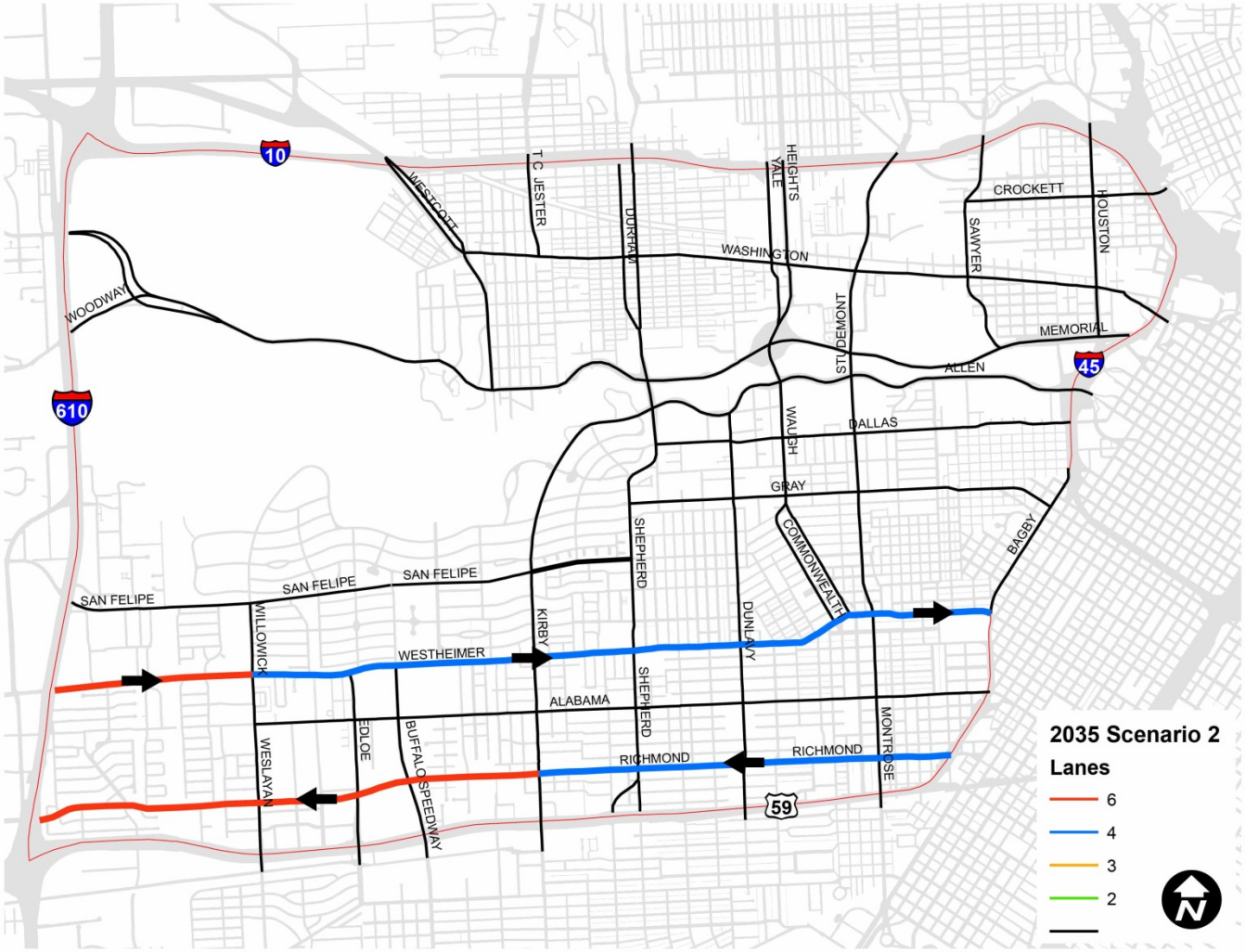
- Scenario 1 – All Transit
- Scenario 2 – All Roads – Westheimer / Richmond Pairs
- Scenario 3 – Interchange, Memorial/Allen/ Shepherd Interchange
- Scenario 4 – Spur 527 to IH 45
- Scenario 5 – Combined

Modeling Scenarios – All Transit

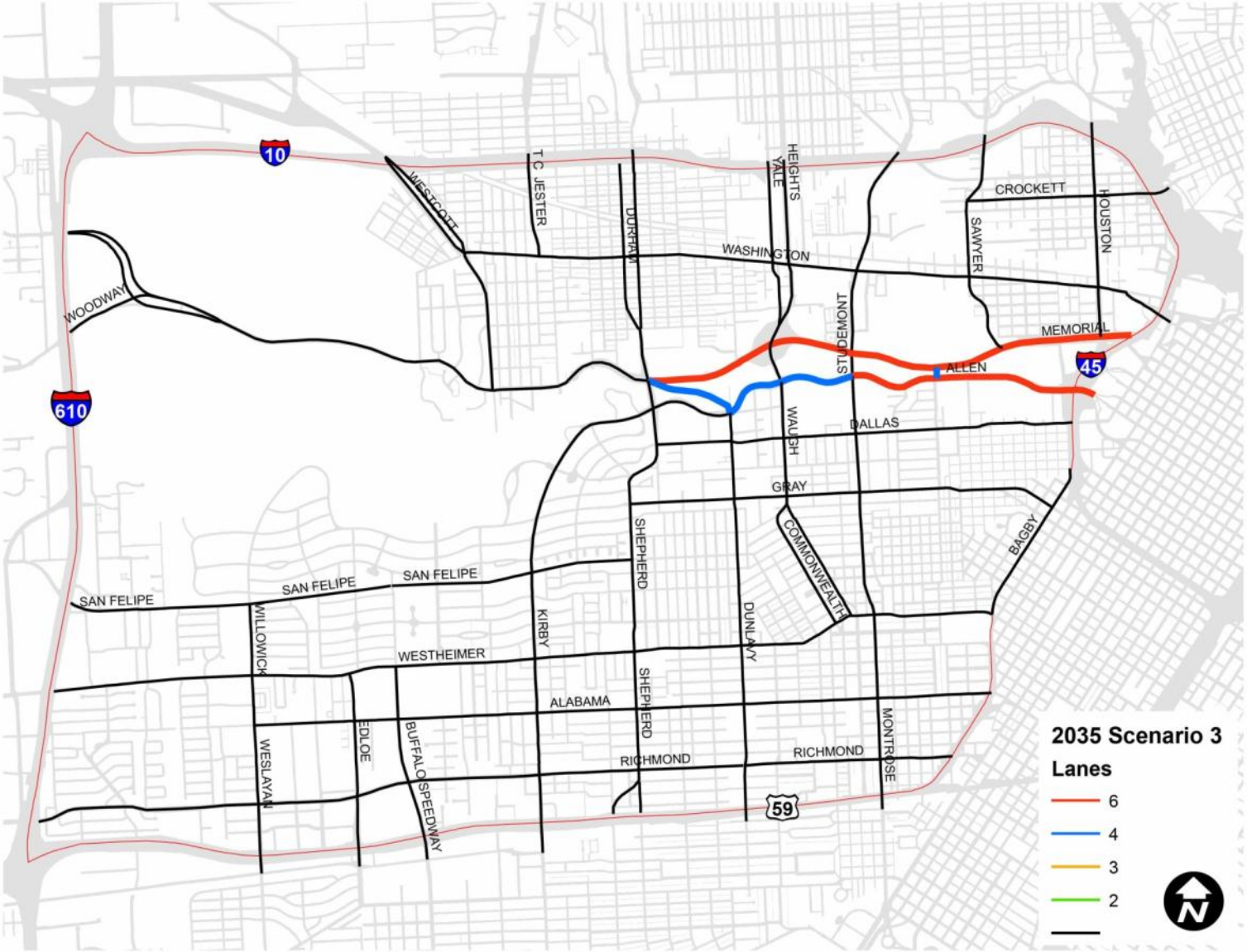
- Ten minute headways in peak.
- 15 off peak.
- Routes include Wertheimer from BW8 to Main Street, Washington from Post Oak to courts complex, shepherd and Montrose
- Richmond rail as planned for 2035



Modeling Scenarios – All Roads

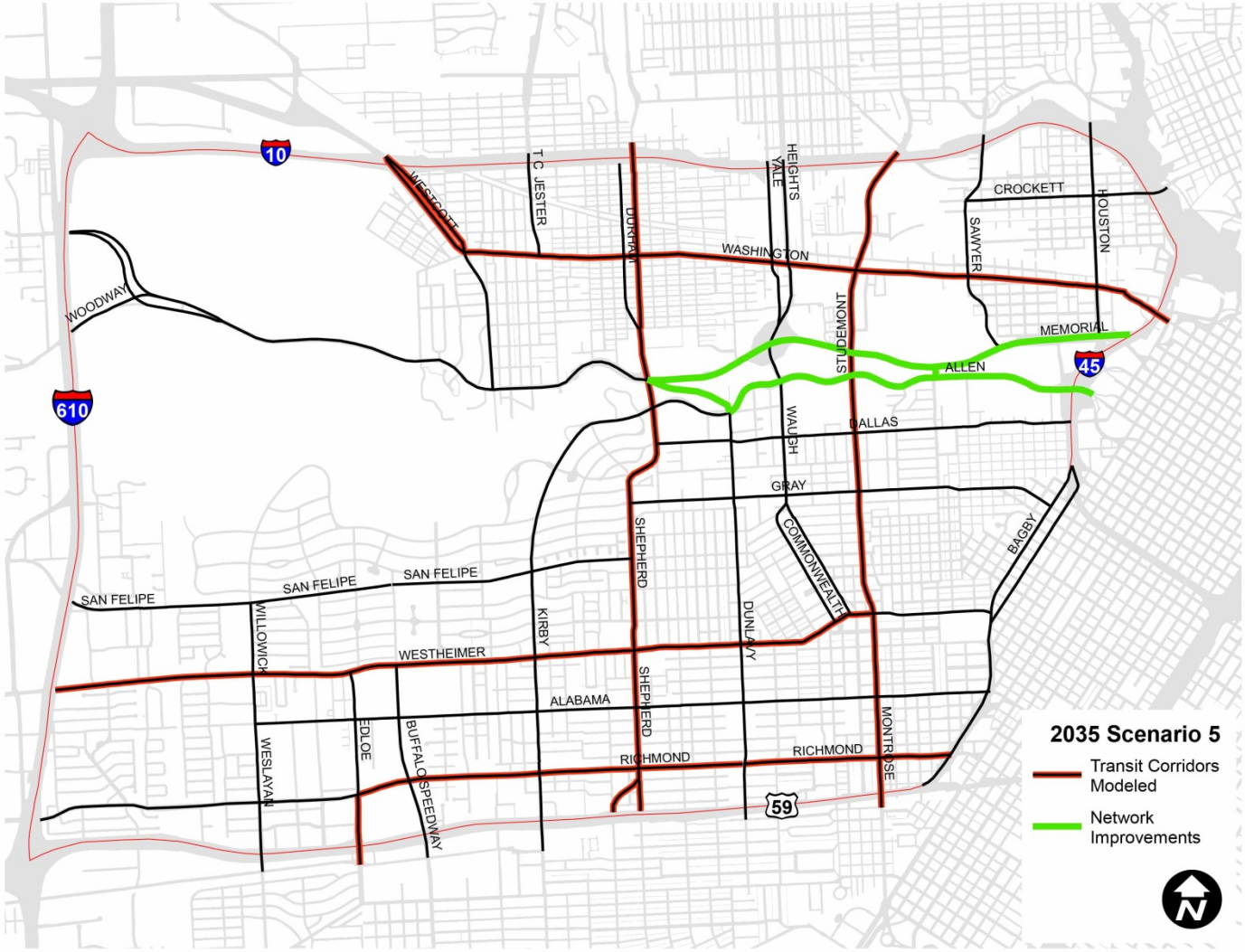


Modeling Scenarios - Interchange



Modeling Scenarios – Spur 527

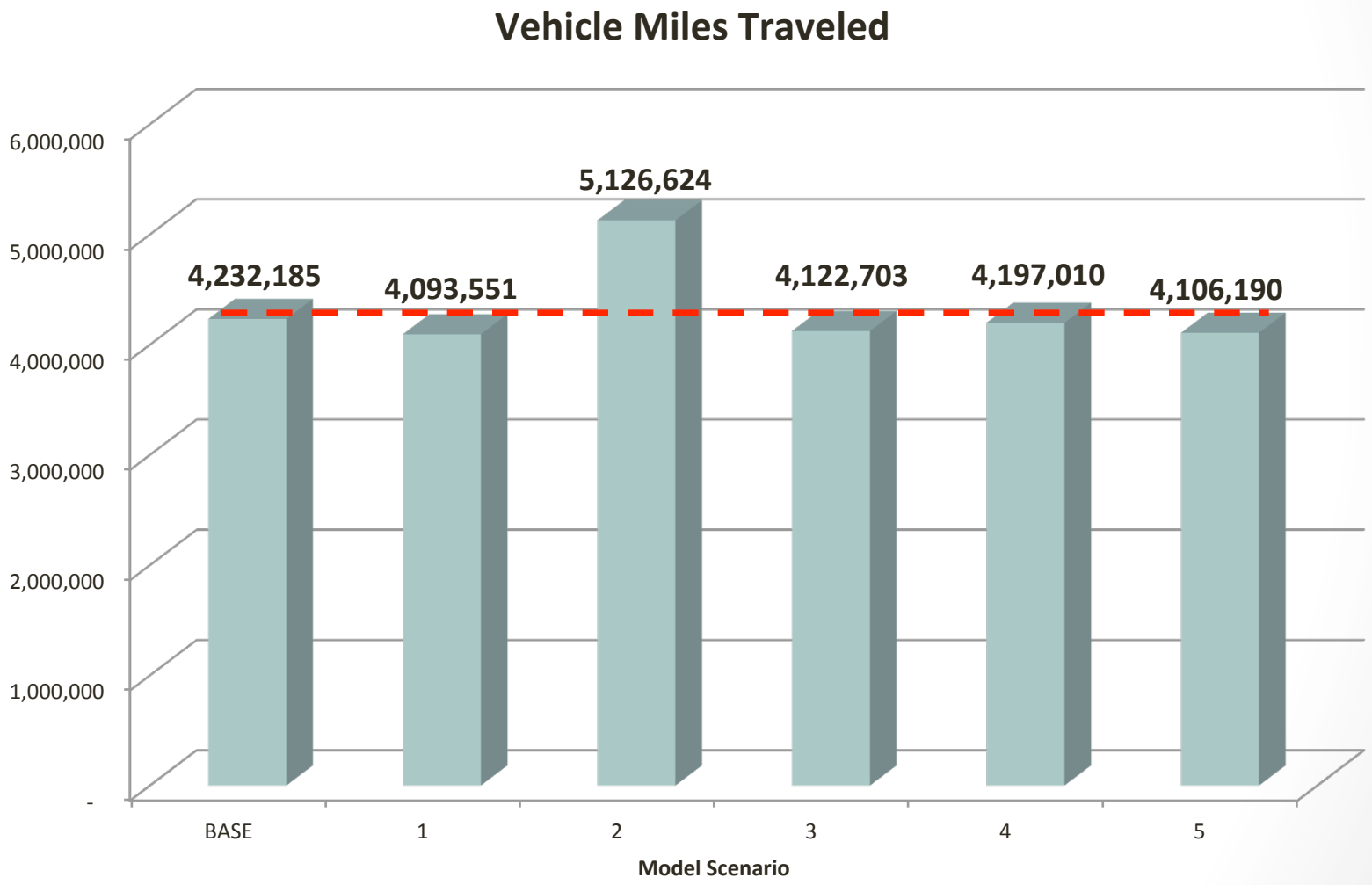
Modeling Scenarios – Combined



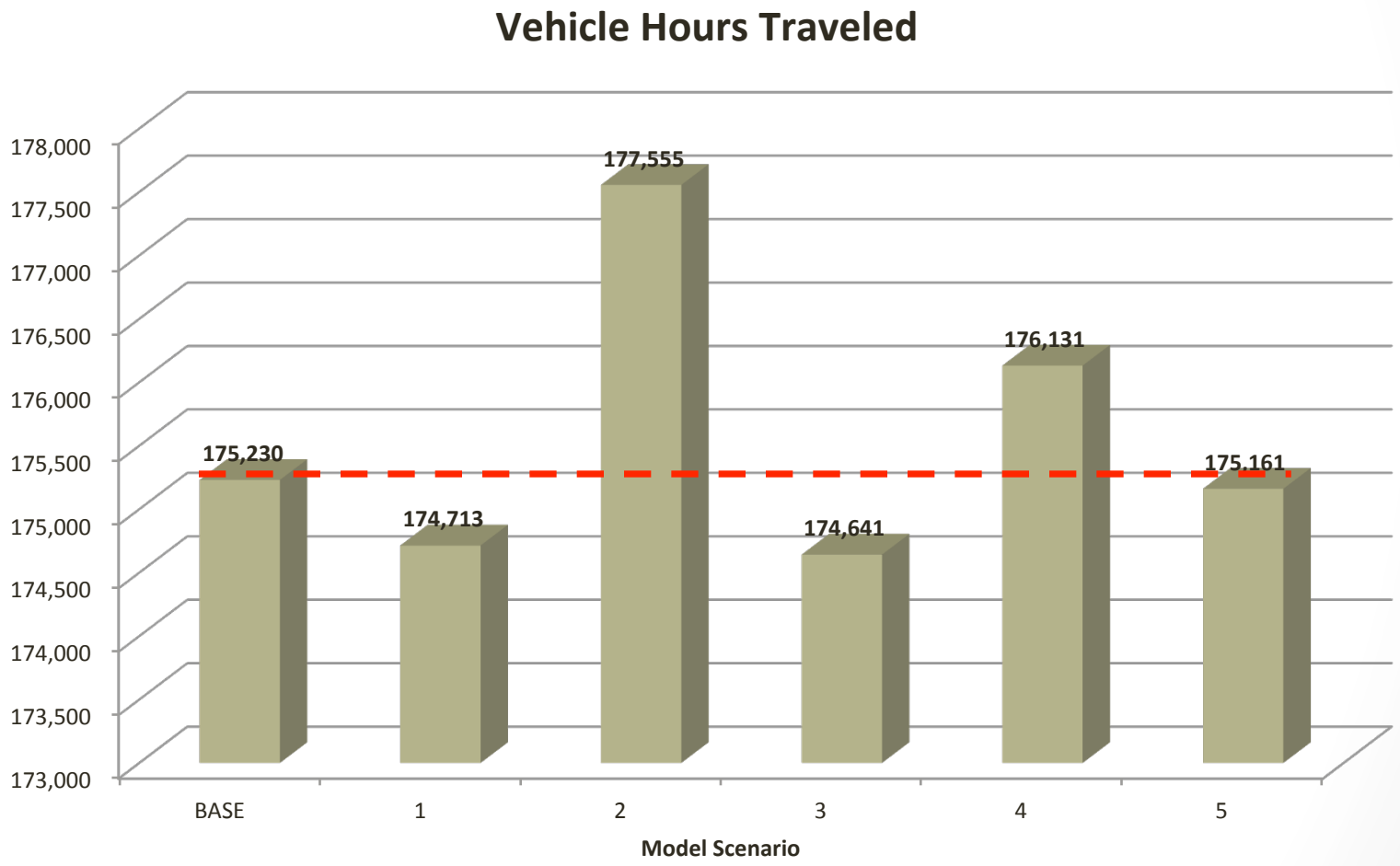
Scenario Results

- VMT-Vehicle Miles Traveled on an average day
- VHT-Vehicle Hours Traveled on an average day
- Delay-Time spent in traffic on average day
- % Congested-Percentage of roads with failing levels of service (>E)

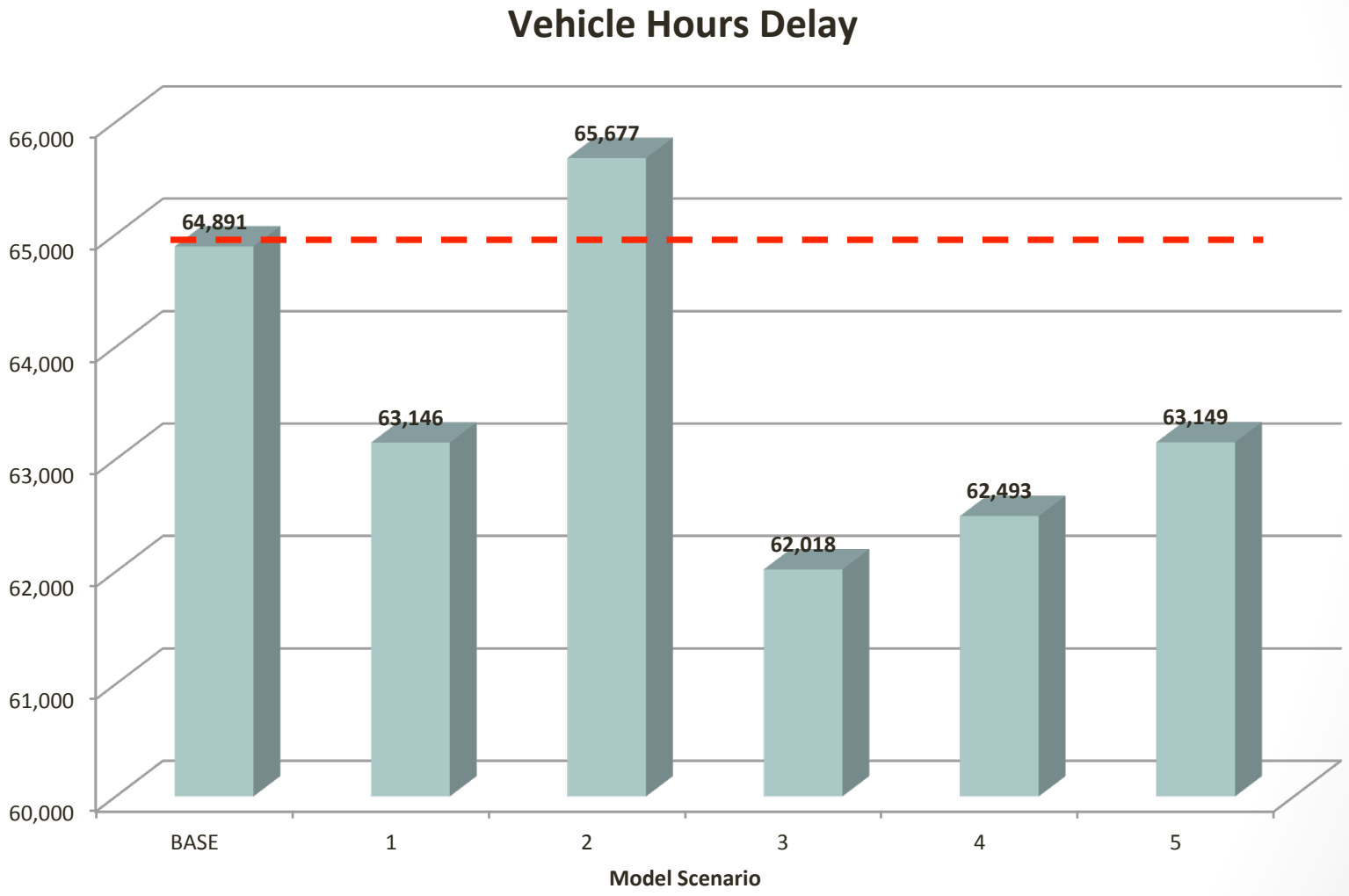
Scenario Results - VMT



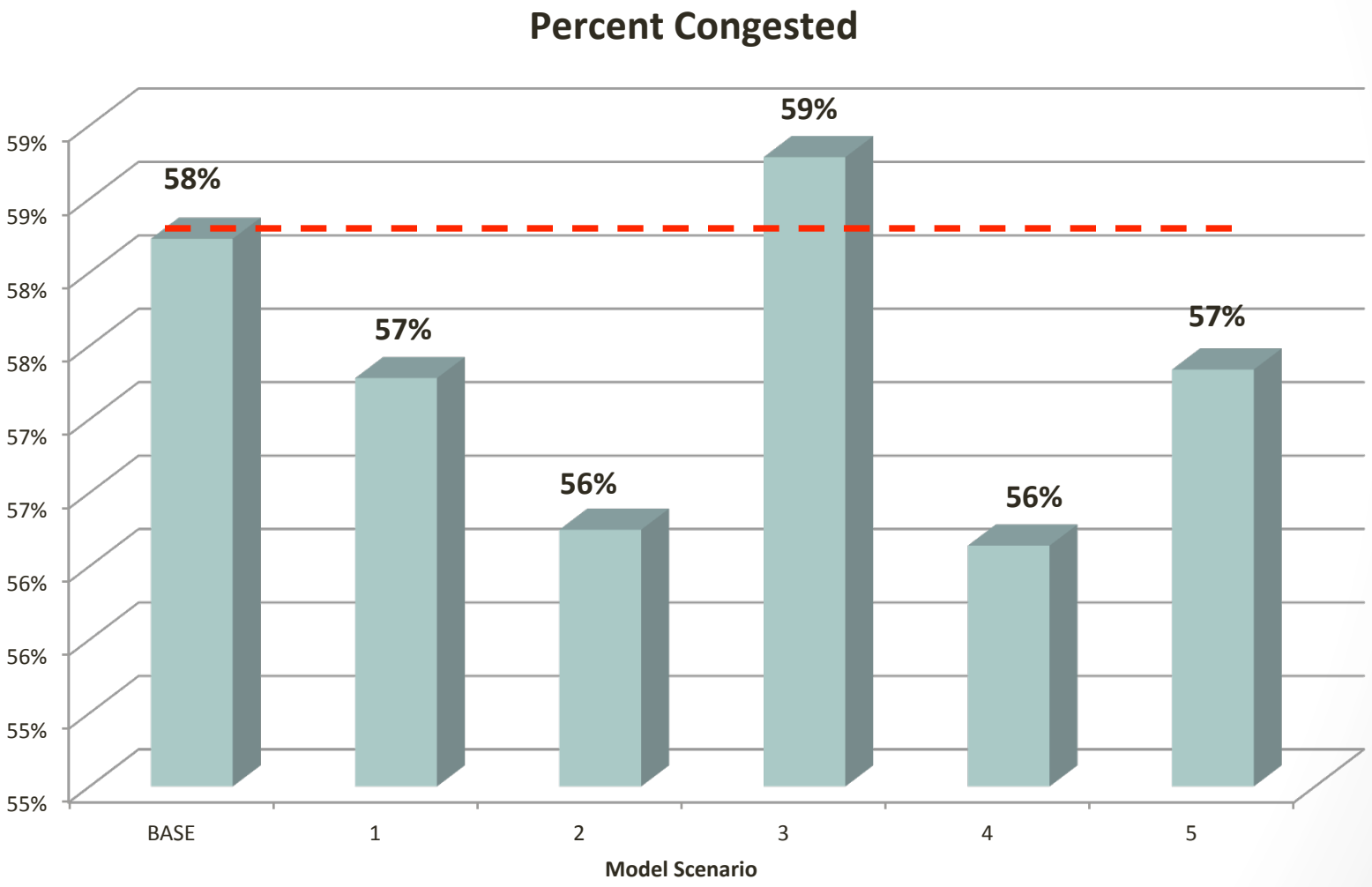
Scenario Results - VHT



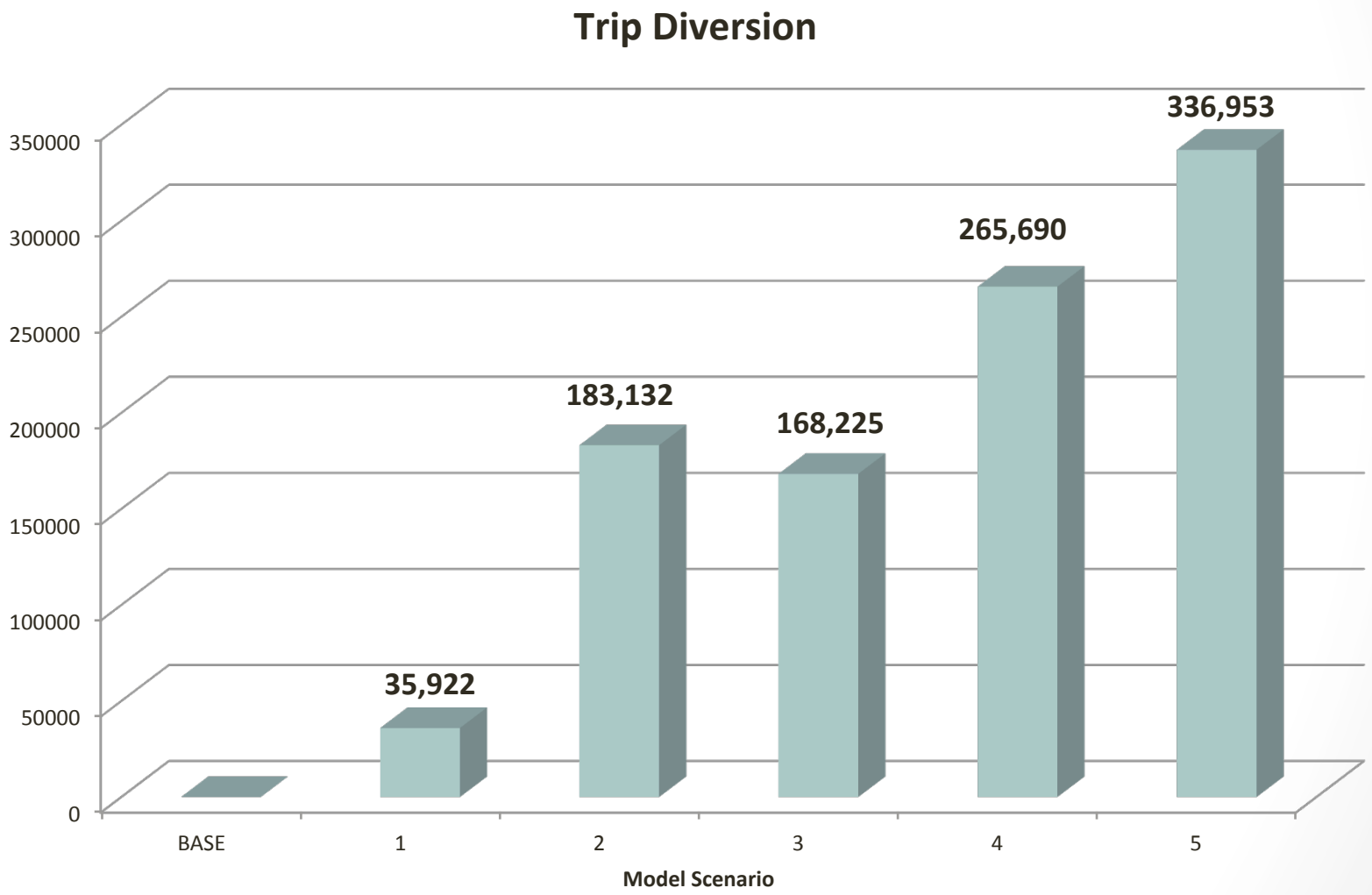
Scenario Results – Delay



Scenario Results – % Congested



Trip Diversion



Scenario Conclusion

- Scenario 5 is attracting almost 340,000 trips to this area
- Transit is key to any future considerations
- Spur 527 doesn't affect local traffic patterns – can be removed at this time
- The one-way pairing of Westheimer and Richmond may have some merits, but much more analysis is needed to consider this concept
- Reconstructing the intersection of Memorial/Shepherd/Allen Pkwy needs additional analysis
- Localized intersection projects are necessary
- Bicycle and pedestrian projects don't measure well in the regional model, but are essential to mobility

Proposed Improvements Mapping Workshop

- Intersection Improvements (30 minutes)
  - List and map
- Corridor Improvements (30 minutes) Refer to map
  - Roadway
    - Memorial Shepard/Allen Interchange
    - Spur 527
  - Transit
  - Bicycle
  - Pedestrian

Next Steps

- Recommended updates to MTFP – not actually going to update – it is out of cycle
- Add forecasted projects derived from future conditions analysis